



MEETING SUMMARY

TRANS-LAKE WASHINGTON PROJECT TECHNICAL COMMITTEE MUSEUM OF HISTORY AND INDUSTRY, SEATTLE, WA MARCH 14, 2001 — 9:00 A.M. — 12:00 P.M.

INTRODUCTION, WELCOME, AND AGENDA REVIEW

Pat Serie, EnviroIssues, opened the meeting and reviewed the agenda. The purpose of the meeting was to receive information about the modal analysis and preliminary recommendations from the project team regarding the multi-modal alternatives. No recommendations would be requested yet from the committee to pass on to the Executive Committee. Updates on the community design process and early actions were also distributed. The order of discussion of the agenda was changed so that discussion of the HCT modal analysis and the highway modal analysis would be followed by the multi-modal packages.

Les Rubstello, WSDOT, stated that this meeting represents the beginning of presentations of numbers and heavy analysis to the committees. This will continue over the next several months.

RESULTS OF MODAL ASSESSMENT

Jeff Peacock, Parametrix, reviewed the process of the first and second level screening. He reiterated that the modal assessments enable the creation of multi-modal alternatives for second level screening with an understanding of each of the components' individual contributions. The modal assessments have focused on performance measures, impacts and costs. Highway alternatives include interchanges and termini; high capacity transit (HCT) alternatives are compared against each other for refinement of potential alignment. Jeff reminded the committee that the purpose of including HCT analysis is to determine if Sound Transit's long-range vision for HCT in the I-90 corridor should be amended.

Terry Marpert, City of Redmond, asked whether the committee will be asked for a recommendation on the multi-modal packages at this meeting. Jeff Peacock said no, that the multi-modal packages will be introduced to the Executive Committee on March 26, 2001, and scheduled for approved in April.

Terry Marpert also asked if it will be shown how aggressive transportation demand management (TDM) may reduce the need for capital expenditures. He suggested that an aggressive TDM strategy might mean that the minimum footprint alternative could be considered with its fewer environmental impacts. Jeff Peacock stated that each of the multi-modal alternatives will be

paired with the same aggressive TDM package, and the increases in performance will be demonstrated.

HIGH CAPACITY TRANSIT MODAL ANALYSIS

Jim Parsons, Puget Sound Transit Consultants, reviewed the high capacity transit analysis, again reiterating that the objective is to determine if the Sound Transit long-range vision needs to be amended. He outlined possible routes on both the west and east sides of the lake. Options for bus rapid transit versus fixed guideway, and options for a route on SR 520 versus a mid-lake crossing versus the I-90, corridor are shown.

West side fixed guideway options include two loops between the University District, Ballard, and Fremont; and along the east side of Lake Union. Eastside networks included two variations between SR 520 and I-405: One route passing through Clyde Hill via tunnel to downtown Bellevue, and the other following the SR 520 and BNSF right-of-way. HCT in the I-90 corridor was modeled with service to downtown Bellevue, with extensions to Kirkland and Redmond.

Bus rapid transit could include a network of trunk and feeder routes or multiple longer routes. A final configuration would be determined by how best to handle large numbers of buses in crowded activity centers. The mid-lake crossing would have comparable routes and networks on both sides of the lake.

Total daily volume in transit ridership across the lake (using a lake 'screen line' that includes SR 520, I-90, and SR 522) showed no significant differences for any of the corridors, nor for the modes. There was a slight increase in ridership for the SR 520 corridor, possibly attributable to service to the University District. Variations in ridership projections are a function of the assumed networks; there is more sensitivity to the exact layout of a transit network in the I-90 corridor. Models showed up to a 40% increase in transit ridership over the no action alternative. Peak period transit ridership for the reverse commute shows better performance on SR 520 than I-90.

Lorie Parker, CH2M Hill, reviewed the potential environmental impacts of each of the options, excluding neighborhood impacts which will not be known until the design is more complete. Along SR 520, in the Montlake area, the Endangered Species Act (ESA) is an issue for both fish migration and bald eagles. There are four parks in that area, including the Arboretum. There are significant 4(f) issues in the area. On the Eastside, Yarrow Bay wetlands, Kelsey Creek, Marymoor Park, the Sammamish River, and Bear Creek are all areas facing potential impacts.

The I-90 corridor on the west side would face fewer impacts, since the current bus-only facility would be used. On the eastside, Mercer Slough, which represents a major park, wetland habitat, and historic buildings and Pickering Farms, would be impacted, in addition to those listed above.

A mid-lake crossing, in addition to those identified for the networks on the west and east sides, would also include construction impacts at the waterline, as well as impacts of portals and ventilation structures.

Jim Parsons presented the cost information for each of the options. Cost estimates are purely conceptual, and not based on design. The numbers are most useful for comparison within modes. He noted that the costs for a new cross-lake facility are larger for BRT than for a fixed guideway system, because BRT would require a wider facility across the lake. Costs for the I-90 corridor include the cost of converting the reversible roadway, but do not include new structures. The mid-lake crossing costs assume either a floating submerged tunnel or a deep bored tunnel. Costs include all capital costs including fleets and maintenance facilities, but do not include mitigation. Cost savings for the I-90 corridor also reflect the use of an existing facility.

The total costs for HCT options reflect the anticipated costs of entire transit networks. The networks could potentially be constructed in stages.

Discussion noted the following points:

- Len Newstrum, Town of Yarrow Point, suggested that the Burlington Northern Santa Fe Railroad (BNSF) right-of-way should be considered as a route on the east side of the Mercer Slough, to take HCT from the I-90 corridor to downtown Bellevue. A surface route could be elevated through downtown. Jim Parsons stated that there are problems with putting a new facility through the I-405/I-90 interchange, and the costs associated with it would likely outweigh the benefits. Tunnels have been assumed for all downtown Bellevue routes, and the project is working with the City of Bellevue on that issue. Regardless of which corridor is ultimately chosen there will likely be a large number of alignments studied for the section through downtown Bellevue.
- Travel time directly from Redmond to Seattle would only increase by four minutes with a routing via downtown Bellevue.
- HOT lanes and managed lanes should be included in the discussion with BRT and HOV lanes. Jim Parsons stated that the pricing issue is yet to be discussed.
- Travel times from Redmond and Kirkland are significantly longer via the I-90 corridor, especially to the University District. Jim Parsons stated that the total ridership is fairly close, but that there are significant differences among markets with the University District markets showing the most variation.
- The I-405 study is showing a preference for making that corridor a mixed-use facility, and concern was expressed that SR 520 lanes might not have sufficient capacity for reliable BRT service. Using the BNSF right-of-way for BRT may make the service reliable. Jim Parsons stated that the recommended refinement of the BRT alternative includes the use of some joint HOV facilities as well as bus only facilities.
- Details on the technology for a fixed guideway system have not been determined. It was suggested that certain technologies may enable an increase in service levels, but that it may also increase operating costs.
- There was concern about sharing the detailed and summarized cost information without any sense of what the total project costs look like, including mitigation. Expectations

among the decision-makers may be set, and increasing expectations beyond those costs will be difficult. It was suggested that the 'total cost' column be renamed to 'capital cost'. The project team feels that including mitigation costs in this stage will cloud the discussion over the capital costs, and focus the discussion on how much mitigation is assumed.

- Service assumption levels for transit are for a 50% increase in service. Baseline assumptions are for 2020 no action levels of service, increased over today's service levels by implementation of the King County Metro six year plan.

Jim Parsons reviewed the conclusions about the HCT modal analysis. He called attention to the following:

- A Clyde Hill tunnel option on the eastside does not significantly shorten travel times for most trips between points on the Eastside and Seattle.
- The mid-lake crossing benefits do not offset the high risks and costs of tunneling, and the team believes it should be dropped from consideration.

HIGHWAY MODAL ANALYSIS

Jeff Peacock reviewed the highway alternatives and assumptions considered in the modal analysis:

- B-1 Minimum footprint
- B-2 HOV lane in each direction
- B-3 HOV lane and GP lane in each direction
- B-5 Bus only lanes

Jeff gave an overview of the performance of each. The model for the minimum footprint (B-1) does not capture safety and reliability changes that would improve throughput over the no action alternative. The HOV lane (B-2) showed a 33% increase in person-trips, including an increase in mode sharing percentages. The GP and HOV (B-3) significantly increased the total person trips with a slightly lower percentage in mode shares. The bus only lanes (B-5) showed a decrease in total numbers of vehicles, with only a modest increase in the number of person trips served. The efficiency of the HOV lanes, therefore, would be much greater than the bus only lanes.

Lorie Parker reviewed the environmental impacts of the highway modal alternatives. The areas impacted are generally the same as for the HCT options in the SR 520 corridor. A tunnel connection through the Montlake Cut to Pacific Street is being considered, and such a project would be of great concern to the resource agencies. In general, environmental impacts will increase with the width of the facility.

Jeff Peacock reviewed the costs, noting that figures shown do not include mitigation (except stormwater), demand management packages, or the cost of money over time. The minimum footprint option, which assumes the facility would be upgraded to design standard shoulders, and that replacement of fixed spans would be more efficient than seismic retrofits, would cost more than one billion dollars. The total costs include design contingencies.

The following points were noted in discussion:

- The mode split percentages at the peak hours may be of more value, to show the benefits of the modal alternative. Jeff Peacock stated that these numbers could be provided for a three-hour peak period.
- Cathy Strombom, Parsons Brinckerhoff, stated that the combined HOV and transit modes are now on the order of 25%, if I-90 and SR 522 are included. The market for HOV and transit service on SR 520 is stronger, indicated by larger mode shares.
- Increases in daily non-HOV volumes in alternatives B2 and B3 can be attributed to the relationship with I-90 and the presence of a significant latent demand. Operational analysis at the interchanges may temper these volumes.
- Costs include improvements that are made along the entire facility; all the assumed interchange improvements may not be necessary.
- It was suggested that significant cost savings could be achieved with aggressive investment in TDM, and therefore all necessary resources to support these savings should be dedicated. Impacts could be reduced, mitigation needs can be reduced, and therefore expensive mitigation options can be reduced. The return on investment for TDM expenditures should be compared to spending. Jeff Peacock stated that the TDM packages will be very advanced and strongly advocated. There may be a point, however, when TDM gives diminishing returns.

PROPOSED MULTI-MODAL PACKAGES

Jeff Peacock reviewed the proposed multi-modal packages recommended by the project team. He stated that the information was being shared with the committee for informational purposes only, and that recommendations would not be sought from the various committees until April. He highlighted the philosophies and ideas behind each of the packages.

The project team has proposed dropping consideration of the following:

1. Mid-Lake HCT crossing. The models have indicated the same levels of ridership as the other two corridors. Since the purpose of including the alternative was to see the benefits of having direct downtown Seattle to downtown Bellevue connections, it does not seem prudent to take on the risk associated with tunneling either in a deep bored or floating submerged tunnel for little added benefit.

2. Minimum footprint. The minimum footprint does not ultimately meet the purpose and need of the project. Other ideas are being proposed which expand upon the philosophy of the idea.
3. Bus only lanes. Much higher throughput is achieved by combining buses in the HOV lanes, at a much greater efficiency. A hybrid is proposed to expand upon this possibility.

The multi-modal alternatives proposed for further consideration are as follows:

1. No Action. It is suggested that under the No Action alternative, just the floating portion of the bridge be replaced, with no other changes made in the corridor. The risk of not taking action on the remaining fixed spans and the rest of the corridor can then be evaluated, and the EIS can then compare all other actions against a truly 'no action' alternative.
2. Safety and Preservation alternative. This alternative shows the cost of no action in terms of replacement of both the floating portion of the bridge and the fixed spans and Portage Bay viaducts for seismic considerations. Refuge for disabled vehicles would be provided, but not necessarily to full design standards. The concept adds non-motorized facilities to the corridor, and would include an aggressive TDM package. It assumes I-90 operates on the R8A option, with HCT in that corridor.
3. SR 520 HOV and I-90 HCT
4. SR 520 HOV and GP and I-90 HCT. The GP lane would terminate at West Lake Sammamish Parkway.
5. SR 520 HOV and SR 520 HCT. HOV lanes would terminate at I-5.
6. SR 520 HOV and GP and SR 520 HCT. This alternative represents the maximum build, with a fixed guideway system. Direct HOV connections would be made to I-5.
7. SR 520 HOV/BRT. A hybrid BRT is accomplished by separating the HOV/BRT lane with a four feet wide pylon separation to enable full speed next to congested GP traffic.
8. SR 520 HOV/BRT and GP. This alternative also explores a separated, dedicated busway from Eastlake to downtown, in the existing right-of-way.

Jim Parsons noted that the operational configuration of I-90 (4-2-4, 3-2-3, etc) is uncertain, and that an assumption needs to be made for modeling purposes. The choice for an HCT corridor will not change the HCT modal analysis. However, the choice of a corridor for HCT will affect the bus and roadway volumes in both of the corridors. Another permutation would be added if a different assumption is made for the I-90 roadway configuration.

Discussion noted the following points:

- It was suggested that the No Action alternative was being understated. The costs of shutting down the bridge might be considered. Jeff Peacock stated that the No Action

and Safety and Preservation alternatives should sufficiently analyze the benefits and society costs of replacing or not replacing the bridge. The No Action alternative is needed to defend the adequacy of the EIS; statements can probably be made that demonstrate the consequences of pursuing that option. There was further discussion on this point, noting that the life limitation of the existing bridge and associated impacts to the other traffic corridors should be included. The difference between replacement and replacement with a wider footprint should be documented. WSDOT would need to maintain the bridge, if it were to sink.

- The mid-lake crossing seems to have the fewest environmental impacts. It was suggested that the documentation for dropping the mid-lake crossing should highlight the risks associated with tunneling, and the lack of performance increase through that corridor, as well as the significant environmental impacts.
- Clarity of information is essential for the second level screening. Otherwise, information that is easier to grasp, such as costs, will become the focus points.
- Some avoidances to impacts should be committed to as soon as possible.

EARLY ACTIONS AND COMMUNITY DESIGN UPDATE

Jeff Peacock briefly reviewed the update on the community design process and open houses. He also stated that the early actions update was included in the committee packets. It was suggested that the third round of community design workshops present information directly related to the right-of-way. Jeff Peacock stated that the third round of workshops will be a further refinement of ideas; some ideas already have gotten strong negative reactions.

OTHER ISSUES

Len Newstrum shared the results of a meeting with Sound Transit officials about his proposal for an elevated transit line along Madison Street in Seattle. His concern is that it will not be properly considered in this phase of the project, and would like to have it evaluated at least by the Technical Committee. The proposal is to take the traffic out of the Arboretum, replacing it with an elevated transit line.

Issues with this proposal include:

- Community issues and resistance in Broadmoor and Madison Park.
- Grades on Madison Street are 10% for 450 meters on the west side of the hill, and 11.5% for 570 meters on the east side of the hill. There are associated technical issues, even for technologies currently not employed in North America. The MagLev test track in Japan had a maximum 7% grade.
- The transportation market for that corridor is much smaller.

MEETING SCHEDULE

The next Advisory Committee meeting will be held April 18, 2001, at the Overlake Medical Conference Center Annex in Bellevue.

MEETING HANDOUTS

- Agenda
- Highway Alternatives Modal Evaluation Initial Findings, report, Mar 9, 2001
- High Capacity Transit Modal Evaluation Initial Findings, report, Mar 9, 2001
- Modal Assessment Results, presentation, March 2001
- Proposed Alternatives for Multi-Modal Evaluation, draft matrix, March 13, 2001
- Input from Community Design Workshops and Open Houses, presentation, March 2001
- Early Actions Progress Report, March 10, 2001
- Memo to Committees RE: SR 520 Light Rail Connections of the Central Link Corridor, March 13, 2001, from Barbara Gilliland, Sound Transit
- Comments from Seattle Open House, March 6, 2001
- Comments from Eastside Open House, March 8, 2001
- Meeting Schedule

ACTION ITEMS

- Show mode split on highway modal alternatives for peak hour travel.
- Share ballpark idea of mitigation with the total cost with the Executive Committee.
- The next CDW should concretely relate to the corridor right-of-way.

MEETING ATTENDEES

Technical Committee Members

Present	Name		Organization
X	Arndt	Jim	City of Kirkland
X	Billen	Don	Sound Transit
	Bowman	Jennifer	Federal Transit Administration
	Brooks	Allyson	Washington State Office of Archaeology and Historic Preservation
	Conrad	Richard	City of Mercer Island
X	Cushman	King	Puget Sound Regional Council
X	Dewey	Peter	University of Washington
	Fisher	Larry	Washington State Department of Fish and Wildlife
X	Francis	Roy	King County Department of Transportation
	Gibbons	Tom	National Marine Fisheries Service
	Kennedy	Jack	U.S. Army Corps of Engineers
	Kenny	Ann	Washington Department of Ecology

X	Kircher	Dave	Puget Sound Clean Air Agency
X	Leonard	Jim	Federal Highway Administration
X	Marpert	Terry	City of Redmond
X	Newstrum	Len	Town of Yarrow Point
	Rave	Krista	U.S. Environmental Protection Agency
	Pratt	Austin	U.S. Coast Guard, 13 th District
X	Sanchez	Susan	City of Seattle
	Schulze	Doug	City of Medina
	Sparrman	Goran	City of Bellevue
X			(Bernard van de Kamp)
	Sullivan	Maureen	WSDOT – NW Region
X	Teachout	Emily	U.S. Fish and Wildlife Service
X	Wasserman	Mitch	City of Clyde Hill
X	Willis	Joe	Town of Hunts Point

Other attendees

Eric Chipps, City of Seattle - SPO
 Dia Segga, Montlake
 Phil Fordyce, WSDOT
 Philip Grega, Seattle

Project Team

Les Rubstello, WSDOT
 Rob Fellows, WSDOT
 Jeff Peacock, Parametrix
 Jim Parsons, Puget Sound Transit Consultants
 Cathy Strombom, Parsons Brinckerhoff
 Hans Saxer, Parsons Brinckerhoff
 Lorie Parker, CH2M Hill
 Eileen Wilson, CH2M Hill
 Pat Serie, EnviroIssues
 Paul Hezel, EnviroIssues

PJH